

Attorney Docket No. 970266D1/TL

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

Applicant(s): B. ALBECK et al

Serial No. : To be assigned,  
(Division of  
USSN 08/902,453,  
filed July 29,  
1997)

Filed : Concurrently  
Herewith

For : METHOD OF WIRING  
ELECTRICAL DEVICES  
OR SYSTEMS, WIRING  
APPARATUS, AND  
TERMINALS USED BY THE  
APPARATUS AND FOR THE  
USE IN THE METHOD

Art Unit : A. DEXTER TUGBANG

Examiner : 3729

**PRELIMINARY AMENDMENT**

Asst. Commissioner for Patents  
Washington, D.C. 20231

S I R :

Please amend the application as follows:

**IN THE SPECIFICATION:**

Page 1, before the first line, insert as follows:

This is a division of application Serial Number  
08/902,453 filed July 29, 1997, pending.

Page 1, replace the first paragraph, corresponding to page  
1, lines 5-11 as follows:

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Julie Harting

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100-334466-1

Reference to related patents, the disclosures of which are hereby incorporated by reference:

U.S. Patent No. 5,422,848, Koller et al., to which German 43 12 777 A1 corresponds;

U.S. Patent No. 5,515,606, Albeck et al.;

U.S. Patent No. 3,930,524 Tarbox.

Page 1, replace paragraph two, corresponding to page 1, lines 12-15 as follows:

Reference to related documentation:

German 32 36 868 A1, Wallner et al.;

German 12 90 210, B.

Page 13, replace paragraph 4, corresponding to page 13, line 31 to page 14, line 33.

The base portion 8 of the housing 4, as best seen in Fig. 4, has a plurality of parallel vertical walls, 9, 10, integrally formed therein. These walls 9, 10, which, see Fig. 5, delimit a contact zone 3. Each contact zone retains a metallic SBIPC 11, retained transversely to the longitudinal extent of the walls 9, 10. The SBIPC, as is well known, has a clamping or holding slit 12, open to the wire introduction side which, in Fig. 2, is at the upper side of the housing 4. The SBIPC 11, which is typically made of stamped sheet metal, is electrically conductively connected with the ballast, for example the windings of an

electromagnetic ballast. Oppositely located edges of the SBIPC 11 are located in facing grooves 13 (Fig. 5) of the walls 9, 10. They are retained with some play, such that the portions of the SBIPC adjacent the slit 12 may elastically deflect when a wire is pressed into the connector. Rib-like or rail-like projections 14 are integrally formed on the housing at both sides of the SBIPC 11 on the sidewalls 9, 10, extending inwardly. The ribs or rails, in pairs, face each other and, to such facing ribs or rails define a wire insertion slot 15, which is open to the wire insertion side, and, in general, has approximately U-shaped form. These projections 14, looked at from the longitudinal direction of the walls 9, 10, are spaced from the SBIPC 11. They also form the lateral limit of the contact zone 3, and, between two longitudinally spaced ribs 14, define a chamber which, in crosssection, is essentially square. Two slot or groove-like recesses 16 extend on both sides from the insertion slots 15 of any one of the terminals 2. These groove-like slots or depressions form extensions of the insertion slots 15 and extend towards the front or rear side of the housing, respectively; they are open to the wire insertion side. These slot- or groove-like extensions 16, the insertion slots 15 and the slit 12 of the SBIPC 11, together define a common plane of symmetry 17 (Fig. 5). The depth of the extensions 16, in this example, is slightly deeper than that of the insertion slots 15. The insertion slots

15, as best seen in Figs. 3 and 4 have, essentially, the same depth as the depth of the slit 12 of the SBIPC 11.


IN THE CLAIMS

Please cancel claims 7-32, without prejudice.

R E M A R K S

This application is a division of U.S. Serial No. 08/902,453 filed July 29, 1997.

Respectfully submitted,

  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

"METHOD OF WIRING ELECTRICAL TERMINALS OF ELECTRICAL  
DEVICES OR SYSTEMS, WIRING APPARATUS, AND TERMINALS  
USED BY THE APPARATUS AND FOR USE IN THE METHOD"

This is a division of application Serial Number 08/902,453  
filed July 29, 1997, pending.

Reference to related patents, the disclosures of which are hereby  
incorporated by reference:

U.S. Patent No. 5,442,848, Koller et al., ~~assigned to the~~  
~~assignee of this application~~ to which German 43 12 777 A1 ~~corresponds~~

U.S. Patent No. 5,515,606, Albeck et al., ~~assigned to the~~  
~~assignee of this application~~;

U.S. Patent No. 3,930,524, ~~Stoneburner~~ Tarbox.  
4

Reference to related documentation:

German 32 36 868 A1, Wallner et al.;

German 12 90 210, B1.

~~German 43 12 777 A1~~

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FIELD OF THE INVENTION.

The present invention relates to the technological field of  
wiring electrical apparatus or devices, for example luminaires,  
fluorescent light fixtures, or the like. The term "electrical  
5 devices" also includes terminal blocks or terminal elements which  
may be associated with light sockets or the like, and which have  
at least one terminal, or may have a number of terminals, for  
example to provide connection points, test points, or support  
points for electrical wires. Specifically, the invention is  
10 directed to a method to wire the electrical terminals of

11.07.97  
Stefan Koller  
Baurhard Albeck

1004466-1-3888888

DETAILED DESCRIPTION.

The method in accordance with the present invention can be used for a wide variety of electrical apparatus and devices; it will be described in detail with respect to wiring of fluorescent lamp luminaires or light fixtures, as, for example, described in the referenced U.S. Patent No. 5,515,506, Albeck et al.

The light fixture or luminaire is first preassembled with the requisite elements thereof; a box structure, usually of metal, is fitted with the respective electrical components, placed thereon in accordance with a predetermined geometric pattern, and attached to the main support, for example a bottom panel of the luminaire box. They are there securely attached. Figs. 1 and 2 illustrate only a ballast 1 which has the terminal block or terminal portion thereof constructed in accordance with a feature of the present invention. These terminal portions or terminal blocks 2 all are based on the general principle of a contact zone 3, which includes a slit blade insulation piercing connector (SBIPC). Details are best seen in Figs. 2 to 5, which illustrate the basic principle.

Each terminal position 2 has a housing 4 made of insulating material, typically of plastic, and includes an electrical wire clamping connection, for example, and as will be described in detail below, and SBIPC 11. The terminal 2 may be a single pole terminal, or, as illustrated in Fig. 2, a double-pole terminal, or can be a multi-pole terminal, as shown in Fig. 3. The housing 4 of insulating material is essentially box- or block-shaped, see Fig. 2, and the bottom thereof is formed with an attachment arrangement, for example, an attachment loop 5, or a similar arrangement, which can be fitted into a bent-up tab 6 of the base plate 7 of the ballast 1.

The base portion 8 of the housing 4, as best seen in Fig. 4, has a plurality of parallel vertical walls 9, 10, <sup>integrally</sup> ~~integral~~ formed therein. These walls 9, 10, which, see Fig. 5, delimit a contact

zone 3. Each contact zone retains a metallic SBIPC 11, retained transversely to the longitudinal extent of the walls 9, 10. The SBIPC, as is well known, has a clamping or holding slit 12, open to the wire introduction side which, in Fig. 2, is at the upper side of the housing 4. The SBIPC 11, which is typically made of stamped sheet metal, is electrically conductively connected with the ballast, for example the windings of an electromagnetic ballast. Oppositely located edges of the SBIPC 11 are located in facing grooves 13 (Fig. 5) of the walls 9, 10. They are retained with some play, such that the portions of the SBIPC adjacent the slit 12 may elastically deflect when a wire is pressed into the connector. Rib-like or rail-like projections 14 are integrally formed on the housing at both sides of the SBIPC 11 on the sidewalls 9, 10, extending inwardly. The ribs or rails, in pairs, face each other and, to such facing ribs or rails define a wire insertion slot 15, which is open to the wire insertion side, and, in general, has approximately U-shaped form. These projections 14, looked at from the longitudinal direction of the walls 9, 10, are spaced from the SBIPC 11. They also form the lateral limit of the contact zone 3, and, between two longitudinally spaced ribs 14, define a chamber which, in cross-section, is essentially square. Two slot or groove-like recesses 16 extend on both sides from the insertion slots 15 of any one of the terminals 2. These groove-like slots or depressions form extensions of the insertion slots 15 and extend towards the front or rear side of the housing, respectively; they are open to the wire insertion side. These slot- or groove-like extensions 16, the insertion slots 15 and the slit 12 of the SBIPC 11, together define a common plane of symmetry 17 (Fig. 5). The depth of the extensions 16, in this example, is slightly deeper than that of the insertion slots 15. The insertion slots 15, as best seen in Figs. 3 and 4 have, essentially, the same depth as the depth of the slit 12 of the SBIPC 11.